ABSTRACT

An image retrieval system performs both keyword-based and content-based image retrieval. A user interface allows a user to specify queries using a combination of keywords and examples images. Depending on the input query, the image retrieval system finds images with keywords that match the keywords in the query and/or images with similar low-level features, such as color, texture, and shape. The system ranks the images and returns them to the user. The user interface allows the user to identify images that are more relevant to the query, as well as images that are less or not relevant to the query. The user may alternatively elect to refine the search by selecting one example image from the result set and submitting its low-level features in a new query. The image retrieval system monitors the user feedback and uses it to refine any search efforts and to train itself for future search queries. In the described implementation, the image retrieval system seamlessly integrates feature-based relevance feedback and semantic-based relevance feedback.